United Nations Framework Convention on Climate Change

The United Nations Framework Convention on Climate Change (UNFCCC) is an international response to our planet's changing climate. Serving as a means through which governments have opted to deal with the threat of global warming, the UNFCCC was adopted at the 1992 Earth Summit in Rio de Janeiro. The ultimate objective of the convention is to stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous interference with Earth's climate.

As of May 2000, 184 countries had ratified the UNFCCC. Since 1994, when the UNFCCC entered into force, the Conference of the Parties, the decision making body of the convention, has met 5 times. In addition, the UNFCCC's subsidiary bodies have met 12 times, and various workshops have been held to help implement climate change goals in such areas as agriculture, energy, and national resources. By sharing technology, such programs help to slow climate change caused by energy production, transportation, industry, agriculture, forestry, and waste management.

The UNFCCC's home page is located at http://www.unfccc.int/. The site introduces five main programs of the convention: Planning, Coordination and Emerging Issues; Implementation; Science and Technology; Intergovernmental and Conference Affairs; and Information, Outreach and Administration Services. These UNFCCC programs work to further develop the commitments individual countries have to lessening climate change. There are also links to resources such as a greenhouse gas inventory database under the What's New? box on the opening page. Within this database, tables include an analysis of each country's greenhouse gas emissions by gas, source, and year. Clicking on Resources under the opening page's sidebar leads to an index of official documents including detailed information about sessions of the Conference of the Parties, the subsidiary parties, and workshops.

The UNFCCC requires industrialized countries to achieve quantified targets for decreasing greenhouse gas emissions. In order to strengthen the international response to climate change, the Kyoto Protocol was adopted under the convention in 1997. Under the Kyoto Protocol, countries agree to cuts in emissions of three of the most important gases: carbon dioxide, methane, and nitrous oxide. The site features the latest ratification lists on the convention and the Kyoto Protocol, as well as the full texts of the convention and the protocol, under the Resources link. By following the Country Information link under Resources, users can click on a country's name for its individual data, such as the date that it ratified the convention.

The convention lists participating countries in two designations: the Annex I and Annex II Parties. The Annex I Parties include both the 24 relatively wealthy countries that were members of the Organisation for Economic Cooperation and Development (OECD) in 1992, the European Union, and countries with economies in transition, such as the Russian Federation and several other Central and Eastern European counties. These countries are committed to adopting national policies and measures aimed at returning their greenhouse gas emissions to 1990 levels by the year 2000. They must also submit regular reports, known as national communications, detailing their climate change policies and annual inventories of their greenhouse gas emissions. The Annex II Parties, a subset of the Annex I Parties, include wealthier countries—the 24 OECD countries and the European Union—which have a special obligation to help developing countries with financial and technological resources. The third national communication from Annex I Parties is due 30 November 2001. These national communications are reviewed by a team of experts and are available by clicking the National Communication heading under the Resources link.

Finally, also included under the Resources link are the Climate Change Information Kit and the Guide to the Climate Change Process. These two documents provide an introductory look at the climate change problem itself and answer frequently asked questions about climate change. **–Lindsey A. Greene**

The Beat

Human Testing of Pesticides

In a one-of-a-kind test for the United States, paid volunteers ingested small-dose capsules of chlorpyrifos to assess the pesticide's potential human health effects. The U.S. EPA stated in 1999 that the widely used pesticide may be dangerous to humans because of its effects on the nervous system.

The study, done by MDS Harris Laboratory in Lincoln, Nebraska, for Dow Chemical, was conducted to supplement 3,600 earlier studies and reports on chlorpyrifos, says Dow spokesman Garry Hamlin. He adds that dosage levels for the study were established using information from the earlier research so that potential risks to the volunteers would be eliminated.

In 1998, the EPA established an advisory panel on human testing after concerns were raised following the publication of an agency notice stating that human testing might be useful in determining safety risks.

Second *Pfiesteria* Species Found

A 1995 fish kill in eastern North Carolina led to the discovery by North Carolina State University marine scientists of a second species of *Pfiesteria*. Named *P. shumwayae*, this new microbe is genetically and structurally different from the first species, *P. piscicida*, which was discovered in 1989.

Like *P. piscicida*, however, *P. shumwayae* has a complex series of life stages and is stimulated to generate fish-killing toxins by the presence of live fish. Both species inhabit an area along the East Coast from the Chesapeake Bay to the Gulf Coast of Alabama.

Stopping Runoff in Its Tracks

USDA Agricultural Research Service scientists at the National Sedimentation Laboratory in Oxford, Mississippi, have determined that vegetated drainage ditches can help farmers reduce the amount of chemicals and sediment carried by stormwater from fields into nearby bodies of water.

Study scientists found that drainage ditches, which are commonly used on farms to siphon off stormwater and control rice field water levels, trapped 60–90% of a liquid pesticide formulation that had been injected into the system prior to the test. The ditches act in much the same way as wetlands, where the soil and vegetation work together to filter the potentially harmful materials from the water.

In a 24 March 2000 press release, the scientists say this method provides farmers with a simple, low-tech, and inexpensive solution to improving surface water quality, and is vital as an alternative management practice.